



## UNITED STATES DEPARTMENT OF COMMERCE. United States Patent and Trademark Office states of MMIS 1000 for R 150 E003 for the control of the Commerce of the Comm

APPLICATION NO	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO	CONFIRMATION NO	
10.055,001	01/25/2002	Christopher A. Helliwell	021565-108	7679	
218/9	7590 07 29 2003				

BURNS DOANE SWECKER & MATHIS L L P POST OFFICE BOX 1404 ALEXANDRIA, VA 22313-1404

EXAMINER NGUYEN, QUANG

ART UNIT PAPER NUMBER 12 1636

DATE MAILED: 07-29-2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary    Examiner	· ·		Application No.		Applicant(s)			
## Examinor ## Art Unit ## Quarg Nguyen Ph.D 1636  ## The MAILING DATE of this communication appears on the cover sheet with the correspondence address  **Period for Reply**  A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 1 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION  □ Extensions of time may be available unser the provisions of 30°C FR 1306.0. In no event however, may a reply be time; tilled  □ The period for early a specified above, the maximum statutory period will apply and will expire Str. (is MCN) Tris form the realing date of this communication from the provisions of 10°C FR 1306.0. In no event however, may a reply be time; tilled  □ The period for early a specified above, the maximum statutory period will apply and will expire Str. (is MCN) Tris form the realing date of this communication from 150°C FR 130°C FR 1704(b).  ■ This period for early a specified above, the maximum statutory period will apply and will expire Str. (is MCN) Tris form the realing date of this communication. The period for early a specified above, the maximum statutory period will apply and will expire Str. (is MCN) Tris form the realing date of this communication. The period form the period of this communication. The period form the period of this communication is from the realing date of this communication. The period of this communication is period. The period form the period of this communication.    **Application** is provided to the practice under Exparte Quayle, 1935 C.D. 11, 453 O.G. 213.    **Disposition** of Claims**   **Application** is strate pending in the application.   **Application** is strate pending in the application.   **Application** is strate even and the period of the pe	•							
Claim (Nguyen, Ph.D. 1636  Period for Reply  A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE ½ MONTH(S) FROM THE MAILING DATE of this communication appears on the cover sheet with the correspondence address—Period for Reply  A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE ½ MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.  A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE ½ MONTH(S) FROM THE MAILING DATE of THIS COMMUNICATION.  If the period to reply specified above is less than thirty (30) (asy, a reply within the scattery minor and in thirty (30) days will be considered time.  If the period to reply specified above is less than thirty (30) (asy, a reply within the scattery minor and in thirty (30) days will be considered time.  If the period to reply specified above is less than thirty (30) (asy, and a reply the time) (illed in the period to reply specified by the communication.  If the period to reply specified on the intervent and the replace of the communication.  Responsive to communication(s) filled on	Office Action Summary							
The MALING DATE of this communication appears on the cover sheet with the correspondence address—Period for Reply  A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE ½ MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.  Certainous time may be a validation of 3 Of 2R 1136(s) in no evert, however may a reply be lines; filled in the proof to reply specified above in lens than 13 Of 2R 1136(s) in no evert, however may a reply be lines; filled in the proof to reply specified above in lens than 13 Of 2R 1136(s) in no evert, however may a reply be lines; filled in 14 the period for reply a specified above in lens than thing 130 (asys, will be considered timely).  If the period for reply is specified above, the maximum statutory period all reply and will apply 38 (MONTHS) from the rating date of this communication (asy and will apply 38 (MONTHS) from the rating date of this communication (asy).  If the period for reply is specified above, the maximum statutory period all reply and will apply 38 (MONTHS) from the rating date of this communication (asy).  If the period for reply is specified above, the maximum statutory period all reply and will apply 38 (MONTHS) from the reply 38 (s).  Responsive to communication(s) filled on		,			•			
Period for Reply  A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 1 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.  Editeriors of time raty be saidled and of the provisions of 31°CR 1136is. In no event, however, may a risply be timely field  Editeriors of time raty be saidled above. The aromanous of 31°CR 1136is. In no event, however, may a risply be timely field  Editeriors of time raty be saidled above. The maximum statistics period will apply any with order to reply a saidled above. The maximum statistics period will apply any will apple 51X (b) MONTHS from the maining alor of this communication.  Any reply received by the Office alore than the rem marks after the maining date of this communication, even if timely field, may reduce any carried patient term adjustment. Set 37°CFR 1.704(b).  Status  1) Responsive to communication(s) filled on		The MAILING DATE of this communication			<u></u>			
THE MAILING DATE OF THIS COMMUNICATION.  Entended in the map be available under the processor of 3 CFR 1 136a.) In no event, however, may a reply be limitely filed after 50. (5) MONTHS from the making state of this communication.  It for processor to the making state of this communication and the state of the communication of the state of the state of the communication.  It for processor to the state of the state of the communication and the state of the s	••							
1) Responsive to communication(s) filed on  2a) This action is FINAL. 2b This action is non-final.  3) Since this application is in condition for allowance except for formal matters, prosecution as to the ments is closed in accordance with the practice under Ex parte Quayle, 1935 C.D. 11, 453 O.G. 213.  Disposition of Claims  4) Claim(s)	THE MAILING DATE OF THIS COMMUNICATION.  - Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.  - If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.  - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.  - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).  - Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).							
2a) This action is FINAL.  2b) This action is non-final.  3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under Ex parte Quayle, 1935 C.D. 11, 453 O.G. 213.  Disposition of Claims  4) Claim(s) 1-33 is/are pending in the application.  4a) Of the above claim(s) is/are withdrawn from consideration.  5) Claim(s) is/are allowed.  6) Claim(s) is/are allowed.  7) Claim(s) is/are objected to.  8) Claim(s) is/are objected to.  8) Claim(s) is/are subject to restriction and/or election requirement.  Application Papers  9) The specification is objected to by the Examiner.  10) The drawing(s) filed on is/are al accepted or bl objected to by the Examiner.  Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  11) The proposed drawing correction filed on is: al approved bl disapproved by the Examiner.  If approved, corrected drawings are required in reply to his Office action.  12) The oath or declaration is objected to by the Examiner.  Priority under 35 U.S.C. §§ 119 and 120.  13) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  a) All bl Some * cl None of:  1 Certified copies of the priority documents have been received in Application No  3 Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  *See the attached detailed Office action for a list of the certified copies not received.  14) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.  Attachments  4) Interview Summary (PTO-413) Paper No(s) Sil Notice of References Cited (PTO-892)  5) Notice of References Cited (PTO-892)  5) Notice of Defisipersons Patent Drawing Review (PTO-948)		Responsive to communication(s) filed on						
3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under <i>Ex parte Quayle</i> , 1935 C.D. 11, 453 O.G. 213.  Disposition of Claims  4) Claim(s) 1-33 is/are pending in the application.  4a) Of the above claim(s) is/are withdrawn from consideration.  5) Claim(s) is/are allowed.  6) Claim(s) is/are allowed.  7) Claim(s) is/are objected to.  8) Claim(s) 1-33 are subject to restriction and/or election requirement.  Application Papers  9) The specification is objected to by the Examiner.  10) The drawing(s) filed on is/are all accepted or blood by the Examiner.  Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  11) The proposed drawing correction filed on is: all approved blood disapproved by the Examiner.  If approved, corrected drawings are required in reply to this Office action.  12) The oath or declaration is objected to by the Examiner.  Priority under 35 U.S.C. §§ 119 and 120  13) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  a) All blood Some collaboration for the priority documents have been received.  2. Certified copies of the priority documents have been received in Application No.  3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  *See the attached detailed Office action for a list of the certified copies not received.  14) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 119(e) (to a provisional application).  a) The translation of the foreign language provisional application has been received.  15) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.	_			inal.				
A) ☐ Claim(s) 1-33 is/are pending in the application.  4a) Of the above claim(s) is/are withdrawn from consideration.  5) ☐ Claim(s) is/are allowed.  6) ☐ Claim(s) is/are allowed.  7) ☐ Claim(s) is/are objected to.  8) ☐ Claim(s) is/are objected to to restriction and/or election requirement.  Application Papers  9) ☐ The specification is objected to by the Examiner.  10) ☐ The drawing(s) filed on is/are a) ☐ accepted or b) ☐ objected to by the Examiner.  Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  11) ☐ The proposed drawing correction filed on is: a) ☐ approved b) ☐ disapproved by the Examiner if approved, corrected drawings are required in reply to this Office action  12) ☐ The oath or declaration is objected to by the Examiner.  Priority under 35 U.S.C. §§ 119 and 120  13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  a) ☐ All b) ☐ Some * c) ☐ None of:  1. ☐ Certified copies of the priority documents have been received.  2. ☐ Certified copies of the priority documents have been received in Application No  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  * See the attached detailed Office action for a list of the certified copies not received.  14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).  a) ☐ The translation of the foreign language provisional application has been received.  15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 120 and/or 121.  Attachment(s)  Notice of References Cited (PTO-892)  20 ☐ Notice of Orahspersson's Patent Drawing Review (PTO-948)  5) ☐ Notice of Informal Patent Application (PTO-152)	3)	, ,	•					
4a) Of the above claim(s) is/are withdrawn from consideration.  5   Claim(s) is/are allowed. 6   Claim(s) is/are rejected. 7   Claim(s) is/are objected to. 8   Claim(s) is/are objected to. 8   Claim(s) is/are objected to by the Examiner. 4   Claim(s) is/are subject to restriction and/or election requirement. 4   Application Papers 9   The specification is objected to by the Examiner. 10   The drawing(s) filed on is/are. a   accepted or b   objected to by the Examiner. Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a). 11   The proposed drawing correction filed on is: a)   approved b   disapproved by the Examiner. If approved, corrected drawings are required in reply to this Office action. 12   The oath or declaration is objected to by the Examiner.  Priority under 35 U.S.C. § 119 and 120  13   Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f). a)   All   b   Some * c   None of:  1.   Certified copies of the priority documents have been received. 2.   Certified copies of the priority documents have been received in Application No 3.   Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)). See the attached detailed Office action for a list of the certified copies not received. 14   Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application). a)   The translation of the foreign language provisional application has been received. 15   Aktachment(s) 10   Notice of References Cited (PTO-892) 20   Notice of Pafsperson's Patent Drawing Review (PTO-948) 5   Notice of Informal Patent Application (PTO-152)								
5  Claim(s) is/are allowed. 6  Claim(s) is/are rejected. 7  Claim(s) is/are objected to. 8  Claim(s) is/are objected to. 8  Claim(s) is/are objected to. 8  Claim(s) is/are objected to by the Examiner.  Application Papers  9  The specification is objected to by the Examiner.  10  The drawing(s) filed on is/are: a) accepted or b) objected to by the Examiner.  Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  11) The proposed drawing correction filed on is: a) approved b) disapproved by the Examiner.  If approved, corrected drawings are required in reply to this Office action.  12) The oath or declaration is objected to by the Examiner.  Priority under 35 U.S.C. §§ 119 and 120  13) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  a) All b) Some * c) None of:  1 Certified copies of the priority documents have been received in Application No  3 Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  * See the attached detailed Office action for a list of the certified copies not received.  14) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).  a) The translation of the foreign language provisional application has been received.  15) Akknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.  Attachment(s)  blue of praftsperson's Patent Drawing Review (PTO-948)  5 Notice of Informal Patent Application (PTO-152)	4) Claim(s) 1-33 is/are pending in the application.							
6  Claim(s) is/are rejected.  7  Claim(s) is/are objected to.  8  Claim(s) 1-33 are subject to restriction and/or election requirement.  Application Papers  9  The specification is objected to by the Examiner.  10  The drawing(s) filed on is/are. a) accepted or b) objected to by the Examiner.  Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  11) The proposed drawing correction filed on is: a) approved b) disapproved by the Examiner.  If approved, corrected drawings are required in reply to this Office action.  12) The oath or declaration is objected to by the Examiner.  Priority under 35 U.S.C. §§ 119 and 120  13) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  a) All b) Some * c) None of:  1 Certified copies of the priority documents have been received.  2 Certified copies of the priority documents have been received in Application No  3 Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  * See the attached detailed Office action for a list of the certified copies not received.  14) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).  a) The translation of the foreign language provisional application has been received.  15) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.  Attachment(s)  10 Notice of References Cited (PTO-892)  21 Notice of Informal Patent Application (PTO-152)	•	4a) Of the above claim(s) is/are with	drawn from consider	ation.				
7) Claim(s) is/are objected to.  8) Claim(s) is/are objected to restriction and/or election requirement.  Application Papers  9) The specification is objected to by the Examiner.  10) The drawing(s) filed on is/are a) accepted or b) objected to by the Examiner.  Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  11) The proposed drawing correction filed on is: a) approved b) disapproved by the Examiner.  If approved, corrected drawings are required in reply to this Office action.  12) The oath or declaration is objected to by the Examiner.  Priority under 35 U.S.C. §§ 119 and 120  13) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  a) All b) Some * c) None of:  1. Certified copies of the priority documents have been received.  2. Certified copies of the priority documents have been received in Application No  3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  * See the attached detailed Office action for a list of the certified copies not received.  14) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).  a) The translation of the foreign language provisional application has been received.  Attachment(s)  1) Notice of References Cited (PTO-892)  2) Notice of Informal Patent Application (PTO-152)	5) Claim(s) is/are allowed.							
8] Claim(s) 1-33 are subject to restriction and/or election requirement.  Application Papers  9) The specification is objected to by the Examiner.  10) The drawing(s) filed on is/are_a a accepted or b objected to by the Examiner.  Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  11) The proposed drawing correction filed on is: a) approved b disapproved by the Examiner.  If approved, corrected drawings are required in reply to this Office action.  12) The oath or declaration is objected to by the Examiner.  Priority under 35 U.S.C. §§ 119 and 120  13) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  a) All b) Some * c) None of:  1. Certified copies of the priority documents have been received.  2. Certified copies of the priority documents have been received in Application No  3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  * See the attached detailed Office action for a list of the certified copies not received.  14) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).  a) The translation of the foreign language provisional application has been received.  Attachment(s)  1) Interview Summary (PTO-413) Paper No(s)  5) Notice of Informal Patent Application (PTO-152)	6)	Claim(s) is/are rejected.						
Application Papers  9) The specification is objected to by the Examiner.  10) The drawing(s) filed on is/are: a  accepted or b  objected to by the Examiner.  Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  11) The proposed drawing correction filed on is: a) approved b  disapproved by the Examiner.  If approved, corrected drawings are required in reply to this Office action.  12) The oath or declaration is objected to by the Examiner.  Priority under 35 U.S.C. §§ 119 and 120  13) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  a) All b) Some * c) None of:  1. Certified copies of the priority documents have been received.  2. Certified copies of the priority documents have been received in Application No  3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  * See the attached detailed Office action for a list of the certified copies not received.  14) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).  a) The translation of the foreign language provisional application has been received.  15) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.  Attachment(s)  1) Notice of References Cited (PTO-892)  2) Notice of Draftsperson's Patent Drawing Review (PTO-948)  5) Notice of Informal Patent Application (PTO-152)	7)	Claim(s) is/are objected to.						
9) The specification is objected to by the Examiner.  10) The drawing(s) filed on is/are: a) accepted or b) objected to by the Examiner.  Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  11) The proposed drawing correction filed on is: a) approved b) disapproved by the Examiner.  If approved, corrected drawings are required in reply to this Office action.  12) The oath or declaration is objected to by the Examiner.  Priority under 35 U.S.C. §§ 119 and 120  13) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  a) All b) Some * c) None of:  1. Certified copies of the priority documents have been received.  2. Certified copies of the priority documents have been received in Application No  3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  * See the attached detailed Office action for a list of the certified copies not received.  14) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).  a) The translation of the foreign language provisional application has been received.  15) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.  Attachment(s)  1) Interview Summary (PTO-413) Paper No(s)  Attachment(s)  1) Notice of References Cited (PTO-892)  2) Notice of Draftsperson's Patent Drawing Review (PTO-948)  5) Notice of Informal Patent Application (PTO-152)	-	· · · ——	or election requirem	ient.				
10) The drawing(s) filed on is/are_a _ accepted or b _ objected to by the Examiner.  Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  11) The proposed drawing correction filed on is: a _ approved b) _ disapproved by the Examiner.  If approved, corrected drawings are required in reply to this Office action.  12) The oath or declaration is objected to by the Examiner.  Priority under 35 U.S.C. §§ 119 and 120  13) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  a) All b _ Some * c _ None of:  1. Certified copies of the priority documents have been received.  2. Certified copies of the priority documents have been received in Application No  3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  * See the attached detailed Office action for a list of the certified copies not received.  14) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).  a) The translation of the foreign language provisional application has been received.  15) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.  Attachment(s)  1) Notice of References Cited (PTO-892)  2) Notice of Draftsperson's Patent Drawing Review (PTO-948)  5) Notice of Informal Patent Application (PTO-152)		•						
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  11) The proposed drawing correction filed on is: a) approved by disapproved by the Examiner.  If approved, corrected drawings are required in reply to this Office action.  12) The oath or declaration is objected to by the Examiner.  Priority under 35 U.S.C. §§ 119 and 120  13) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  a) All b) Some * c) None of:  1. Certified copies of the priority documents have been received.  2. Certified copies of the priority documents have been received in Application No  3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  * See the attached detailed Office action for a list of the certified copies not received.  14) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).  a) The translation of the foreign language provisional application has been received.  15) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.  Attachment(s)  1) Notice of References Cited (PTO-892)  2) Notice of References Cited (PTO-892)  3) Notice of Informal Patent Application (PTO-152)	·							
11) The proposed drawing correction filed on is: a) approved b) disapproved by the Examiner.  If approved, corrected drawings are required in reply to this Office action.  12) The oath or declaration is objected to by the Examiner.  Priority under 35 U.S.C. §§ 119 and 120  13) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  a) All b) Some * c) None of:  1. Certified copies of the priority documents have been received.  2. Certified copies of the priority documents have been received in Application No  3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  * See the attached detailed Office action for a list of the certified copies not received.  14) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).  a) The translation of the foreign language provisional application has been received.  15) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.  Attachment(s)  1) Notice of References Cited (PTO-892)  4) Interview Summary (PTO-413) Paper No(s)  Notice of Draftsperson's Patent Drawing Review (PTO-948)	10)[]		. , ,	•				
If approved, corrected drawings are required in reply to this Office action.  12) The oath or declaration is objected to by the Examiner.  Priority under 35 U.S.C. §§ 119 and 120  13) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  a) All b) Some * c) None of:  1. Certified copies of the priority documents have been received.  2. Certified copies of the priority documents have been received in Application No  3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  * See the attached detailed Office action for a list of the certified copies not received.  14) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).  a) The translation of the foreign language provisional application has been received.  15) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.  Attachment(s)  1) Notice of References Cited (PTO-892)  4) Interview Summary (PTO-413) Paper No(s)	445							
12) ☐ The oath or declaration is objected to by the Examiner.  Priority under 35 U.S.C. §§ 119 and 120  13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  a) ☐ All b) ☐ Some * c) ☐ None of:  1. ☐ Certified copies of the priority documents have been received.  2. ☐ Certified copies of the priority documents have been received in Application No  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  * See the attached detailed Office action for a list of the certified copies not received.  14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).  a) ☐ The translation of the foreign language provisional application has been received.  15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.  Attachment(s)  1) ☐ Notice of References Cited (PTO-892)  4) ☐ Interview Summary (PTO-413) Paper No(s)  Notice of Informal Patent Application (PTO-152)								
Priority under 35 U.S.C. §§ 119 and 120  13) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  a) All b) Some * c) None of:  1. Certified copies of the priority documents have been received.  2. Certified copies of the priority documents have been received in Application No  3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  * See the attached detailed Office action for a list of the certified copies not received.  14) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).  a) The translation of the foreign language provisional application has been received.  15) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.  Attachment(s)  1) Notice of References Cited (PTO-892)  4) Interview Summary (PTO-413) Paper No(s)								
13) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  a) All b) Some * c) None of:  1. Certified copies of the priority documents have been received.  2. Certified copies of the priority documents have been received in Application No  3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  * See the attached detailed Office action for a list of the certified copies not received.  14) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).  a) The translation of the foreign language provisional application has been received.  15) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.  Attachment(s)  1) Notice of References Cited (PTO-892)  1) Notice of Draftsperson's Patent Drawing Review (PTO-948)  5) Notice of Informal Patent Application (PTO-152)								
a) All b) Some * c) None of:  1. Certified copies of the priority documents have been received.  2. Certified copies of the priority documents have been received in Application No  3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  * See the attached detailed Office action for a list of the certified copies not received.  14) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).  a) The translation of the foreign language provisional application has been received.  15) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.  Attachment(s)  1) Notice of References Cited (PTO-892)  2) Notice of Draftsperson's Patent Drawing Review (PTO-948)  1 Interview Summary (PTO-413) Paper No(s)  Notice of Informal Patent Application (PTO-152)								
1. Certified copies of the priority documents have been received.  2. Certified copies of the priority documents have been received in Application No  3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  * See the attached detailed Office action for a list of the certified copies not received.  14) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).  a) The translation of the foreign language provisional application has been received.  15) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.  Attachment(s)  1) Notice of References Cited (PTO-892)  2) Notice of Draftsperson's Patent Drawing Review (PTO-948)  1 Interview Summary (PTO-413) Paper No(s)								
2. Certified copies of the priority documents have been received in Application No  3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  * See the attached detailed Office action for a list of the certified copies not received.  14) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).  a) The translation of the foreign language provisional application has been received.  15) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.  Attachment(s)  1) Notice of References Cited (PTO-892)  Notice of Draftsperson's Patent Drawing Review (PTO-948)  1) Notice of Informal Patent Application (PTO-152)								
3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  * See the attached detailed Office action for a list of the certified copies not received.  14) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).  a) The translation of the foreign language provisional application has been received.  15) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.  Attachment(s)  1) Notice of References Cited (PTO-892)  2) Notice of Draftsperson's Patent Drawing Review (PTO-948)  5) Notice of Informal Patent Application (PTO-152)								
application from the International Bureau (PCT Rule 17.2(a)).  * See the attached detailed Office action for a list of the certified copies not received.  14) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).  a) The translation of the foreign language provisional application has been received.  15) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.  Attachment(s)  1) Notice of References Cited (PTO-892)  2) Notice of Draftsperson's Patent Drawing Review (PTO-948)  5) Notice of Informal Patent Application (PTO-152)	<u> </u>							
a) The translation of the foreign language provisional application has been received.  15) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.  Attachment(s)  1) Notice of References Cited (PTO-892) 2) Notice of Draftsperson's Patent Drawing Review (PTO-948)  4) Interview Summary (PTO-413) Paper No(s).  Notice of Informal Patent Application (PTO-152)	application from the International Bureau (PCT Rule 17.2(a)).							
15) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.  Attachment(s)  1) Notice of References Cited (PTO-892) 2) Notice of Draftsperson's Patent Drawing Review (PTO-948)  4) Interview Summary (PTO-413) Paper No(s).  Notice of Informal Patent Application (PTO-152)	14) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).							
Attachment(s)  1) Notice of References Cited (PTO-892) 2) Notice of Draftsperson's Patent Drawing Review (PTO-948)  4) Interview Summary (PTO-413) Paper No(s) 5) Notice of Informal Patent Application (PTO-152)	<u> </u>							
2) Notice of Draftsperson's Patent Drawing Review (PTO-948)  5) Notice of Informal Patent Application (PTO-152)								
	2) Notice	of Draftsperson's Patent Drawing Review (PTO-948)	5)	Notice of Informal Pa				

Application/Control Number: 10/055,001 Page 2

Art Unit: 1636

## **DETAILED ACTION**

Note that the specification as filed contains two claims numbered 28. Per 35 CFR 1.126, originally filed claims 1-32 have been <u>renumbered</u> as claims 1-33.

Accordingly, claims 1-33 are pending in the present application, and they are subjected to the following restrictions.

## Election/Restrictions

Restriction to one of the following inventions is required under 35 U.S.C. 121:

- I. Claims 1-6, 11-12 and 20-21, drawn to an acceptor vector of the present invention having the recited components, wherein the promoter or promoter region (3) is recognized by RNA polymerases of a non-plant eukaryotic cell, and a kit comprising the same, classified in class 435, subclass 320.1.
- II. Claims 1-12 and 20-21, drawn to an acceptor vector of the present invention having the recited components, wherein the promoter or promoter region (3) is a plant-expressible promoter, and a kit comprising the same, classified in class 435, subclass 320.1.
- III. Claim 13, drawn to a vector comprising the sequence of SEQ ID NO:13, classified in class 435, subclass 320.1.
- IV. Claim 14, drawn to a vector comprising the sequence of SEQ ID NO:23, classified in class 435, subclass 320.1.

Page 3

Application/Control Number: 10/055,001

Art Unit: 1636

- V. Claim 15, drawn to a vector comprising the sequence of SEQ ID NO:24, classified in class 435, subclass 320.1.
- VI. Claim 16, drawn to a vector comprising the sequence of SEQ ID NO:25, classified in class 435, subclass 320.1.
- VII. Claim 17, drawn to a vector comprising the sequence of SEQ ID NO:26, classified in class 435, subclass 320.1.
- VIII. Claims 18-19, drawn to an acceptor vector of the present invention having the recited components, wherein the promoter or promoter region (3) is recognized by a prokaryotic RNA polymerase, classified in class 435, subclass 320.1.
- IX. Claims 22 and 24-27, drawn to a method for making a chimeric DNA construct capable of expressing a dsRNA in a eukaryotic cell comprising the recited steps, wherein the product DNA molecules are selected in vitro, classified in class 435, subclass 462.
- X. Claims 22-27, drawn to a method for making a chimeric DNA construct capable of expressing a dsRNA in a eukaryotic cell comprising the recited steps, wherein the product DNA molecules are selected in vivo, classified in class 514, subclass 44.
- XI. Claims 28 and 32, drawn to a method for preparing a eukaryotic non-human organism wherein the phenotypic expression of a target nucleic acid of interest is reduced or inhibited, and a eukaryotic non-human organism comprising a chimeric DNA construct of the present invention,

Art Unit: 1636

wherein <u>said eukaryotic organism is not a plant</u>, classified in class 800, subclasses 13, 25, for examples.

- XII. Claims 28-29 and 32-33, drawn to a method for preparing a eukaryotic non-human organism wherein the phenotypic expression of a target nucleic acid of interest is reduced or inhibited, and a eukaryotic non-human organism comprising a chimeric DNA construct of the present invention, wherein said eukaryotic organism is a plant, classified in class 800, subclasses 278, 295, for examples.
- XIII. Claim 30, drawn to a method for isolating a nucleic acid molecule involved in determining a particular trait in cells of a eukarytoic non-human organism, wherein said eukaryotic organism is not a plant, classified in class 800, subclass 3.
- XIV. Claims 30-31, drawn to a method for isolating a nucleic acid molecule involved in determining a particular trait in cells of a eukaryotic non-human organism, wherein said eukaryotic organism is a plant, classified in class 800, subclass 278.

Claims 1-6, 11-12 and 20-21 link patentably distinct inventions of Groups I-II that lack the unity of invention. This is because the acceptor vectors in Groups I and II are distinct vectors. While the vector of Group I is recognized by RNA polymerases of a non-plant eukaryotic cell, the vector of Group II contains specifically a plant-expressible promoter. There is no substantial common core structure between a non-plant promoter and a plant-expressible promoter. As set forth in MPEP 803.02, unity of

Art Unit: 1636

invention exists if all species recited in a claim (1) shows a common utility, and (2) share a substantial structural feature disclosed as being essential to that utility.

Additionally, should Applicants elect the invention of Group I or Group II, further group restriction is required. This is because claims 1 and 6 link patentably distinct inventions that lack the unity of invention. This is because the selectable markers genes in the group consisting of: (a) an antibiotic resistance gene, (b) a tRNA gene, (c) an auxotrophic marker, (d) a toxic gene, (e) a phenotypic marker, (f) an antisense oligonucelotide, (g) a restriction endonuclease, (h) a restriction endonuclease cleavage site, (i) an enzyme cleavage site, (j) a protein binding site, and (k) a sequence complementary PCR primer, are structurally distinct and they do not share a substantial common core structure. As set forth in MPEP 803.02, unity of invention exists if all species recited in a claim (1) shows a common utility, and (2) share a substantial structural feature disclosed as being essential to that utility.

Claims 22 and 24-27 link patentably distinct inventions of Groups IX and X that lack the unity of invention. This is because the methods for making a chimeric construct capable of expressing a dsRNA in a eukaryotic cell in Groups IX and X have different method steps and therefore they require different technical considerations for achieving the desired results, specifically the product DNA molecule in Group IX is selected *in vitro*, whereas the product DNA molecule is specifically selected *in vivo*. As set forth in MPEP 803.02, unity of invention exists if all species recited in a claim (1) shows a common utility, and (2) share a substantial structural feature disclosed as being essential to that utility.

Art Unit: 1636

Claims 28 and 32 link patentably distinct inventions of Groups XI and XII that lack the unity of invention. This is because the method of Group XI for preparing a non-plant eukaryotic non-human organism and a non-plant eukaryotic non-human organism have different method steps, starting materials and it requires different technical considerations for achieving the end-results from the method of Group XII for preparing a plant and a plant. The non-plant organisms containing a chimeric DNA construct of the present invention have distinct chemical as well as physical features from a plant containing a chimeric DNA construct of the present invention. As set forth in MPEP 803.02, unity of invention exists if all species recited in a claim (1) shows a common utility, and (2) share a substantial structural feature disclosed as being essential to that utility.

Similarly, claim 30 link patentably distinct inventions of Groups XIII and XIV that lack the unity of invention. This is because the method of Group XIII for isolating a nucleic acid molecule involved in determining a particular trait in cells of non-plant eukaryotic non-human organism has different method steps, starting materials and it requires different technical considerations for achieving the end-results from the method of Group XIV for isolating a nucleic acid molecule involved in determining a particular trait in cells of a plant. As set forth in MPEP 803.02, unity of invention exists if all species recited in a claim (1) shows a common utility, and (2) share a substantial structural feature disclosed as being essential to that utility.

Upon the allowance of the linking claims, the restriction requirement as to the linked invention shall be withdrawn and any claim(s) depending from or otherwise

Page 7

Application/Control Number: 10/055,001

Art Unit: 1636

including all the limitations of the allowable linking claim(s) will be entitled to examination in the instant application. Applicant(s) are advised that if any such claim(s) depending from or including all the limitations of the allowable linking claim(s) is/are presented in a continuation or divisional application, the claims or the continuation or divisional application may be subject to provisional statutory and/or nonstatutory double patenting rejections over the claims of the instant application. Where a restriction requirement is withdrawn, the provisions of 35 U.S.C. 121 are no longer applicable. See *In re Ziegler*, 44 F.2d 1211, 1215, 170 USPQ 129, 131-132(CCPA 1971). See also MPEP 804.01.

The inventions are distinct, each from the other because of the following reasons:

The compositions of Groups I-VIII are distinct. For example, the vector of Group I contains a promoter or promoter region (3) recognized by RNA polymerases of a non-plant eukaryotic cells, whereas the vector of Group II contains a plant-expressible promoter and the vector of Group VIII contains a promoter recognized by a prokaryotic RNA polymerases. Additionally, none of the vectors of Groups I, II and VIII comprises the sequence of SEQ ID NO:13, 23, 24,25 or 26 as the vectors of Groups III-VII, respectively. Furthermore, the vectors of Groups I-VIII are chemically and structurally distinct from the eukaryotic non-human organisms of Groups XI and XII.

The methods of Groups IX-XIV are distinct one from the others as they are drawn to methods having different starting materials, different method steps and therefore they require different technical considerations for achieving different desired end-results. It

Art Unit: 1636

Page 8

is also noted that the methods of Groups IX-XIV can be practiced with at least one of

the vectors in Groups I-VIII.

Because these inventions are distinct for the reasons given above and have

acquired a separate status in the art because of their recognized divergent subject

matter, and separate search requirements particularly with regard to the literature

search databases, it would be unduly burdensome for the examiner to search and/or

consider the patentability of all the inventions in a single application. Therefore,

restriction for examination purposes as indicated is proper.

Applicant is reminded that upon the cancellation of claims to a non-elected

invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one

or more of the currently named inventors is no longer an inventor of at least one claim

remaining in the application. Any amendment of inventorship must be accompanied by

a diligently-filed petition under 37 CFR 1.48(b) and by the fee required under 37 CFR

1.17 (h).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Quang Nguyen, Ph.D., whose telephone number is

(703) 308-8339.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's mentor, Gerald Leffers, Jr., Ph.D., may be reached at (703) 305-6232, or SPE, Irem

Yucel, Ph.D., at (703) 305-1998.

Quang Nguyen, Ph.D.

PATENT EXAMINER